

## § 34.20-1

of § 34.17-5 and § 34.17-25. A 6-inch blanket of foam in 3 minutes for machinery spaces and pumprooms will be considered as meeting the requirements of § 34.17-5.

(3) Where a system is installed to protect a tank, it shall be so designed and arranged as to spread a blanket of foam over the entire liquid surface of the tank within the range of usual trim. The arrangement of piping shall be such as to give a relatively uniform distribution over the entire area protected.

(4) For tanks, the rate of discharge to foam outlets protecting the hazard shall be as set forth in § 34.17-5(b), except that the value of 1 gallon per minute shall be substituted in both cases for the value of 1.6 gallons per minute. The quantity of foam provided shall be sufficient to operate the equipment for 5 minutes.

(5) On installations installed prior to November 19, 1952, a semiportable foam generator using a dry-chemical mixture or mechanical foam in conjunction with the fire lines may be substituted for the fixed system subject to the following conditions:

(i) There shall be at least one fire pump of suitable capacity available which can be operated and controlled from outside the space protected.

(ii) Stop valves shall be installed in the line so that if any portion of the fire main is ruptured, the foam generator may still be operated. Connections for at least two fire hoses shall be provided between the pump and the stop valve.

(iii) If the foam system is of the portable or semiportable type, the apparatus and chemicals shall be stored in a readily accessible place protected from the weather.

### Subpart 34.20—Deck Foam System, Details

#### § 34.20-1 Application—T/ALL.

(a) Where a deck foam system is installed, the provisions of this subpart, except § 34.20-90, apply to all installations that are contracted for on or after January 1, 1970, unless otherwise indicated.

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(b) Installations contracted for prior to January 1, 1970, shall meet the requirements of § 34.20-90.

(c) Foreign flag crude oil tankers and product carriers required to have fixed deck foam systems by this subpart must have systems that are designed and installed in accordance with Regulation 61 of Chapter II-2 of SOLAS 1974. (Senate Document, 57-1180, GPO, Washington, 1976; "Message from the President of the United States transmitting, the International Convention for the Safety of Life at Sea, 1974, Done at LONDON, November 1, 1974").

(46 U.S.C. 391a; 49 CFR 1.46(n)(4))

[CGFR 69-72, 34 FR 17481, Oct. 29, 1969, as amended by CGD 74-127, 41 FR 3846, Jan. 26, 1976; CGD 77-057a, 44 FR 66502, Nov. 19, 1979]

#### § 34.20-3 Cargo area definition—T/ALL.

(a) For the purpose of this subpart, the term *cargo area* is defined as the maximum beam of the vessel times the total longitudinal extent of the cargo tank spaces.

#### § 34.20-5 Quantity of foam required—T/ALL.

(a) *Area protected.* Systems of this type are designed to give primary protection to the spaces over the cargo tanks.

(b) *Rate of application.* The water rate of the foam production equipment shall be determined as follows:

(1) For usual petroleum products the rate of supply of foam solution shall be not less than the greatest of the following:

(i) 0.6 liters/min per square meter of cargo tanks deck area, where cargo tanks deck area means the maximum breadth of the ship multiplied by the total longitudinal extent of the cargo tank spaces;

(ii) 6 liters/min per square meter of the horizontal sectional area of the single tank having the largest such area; or

(iii) 3 liters/min per square meter of the area protected by the largest monitor, such area being entirely forward of the monitor, but not less than 1,250 liters/min.

(2) For polar solvent products (e.g. alcohols, ketones, etc.) the water rate shall be determined for each vessel.